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Rural Electrification Administration

U. S. Department of Agriculture

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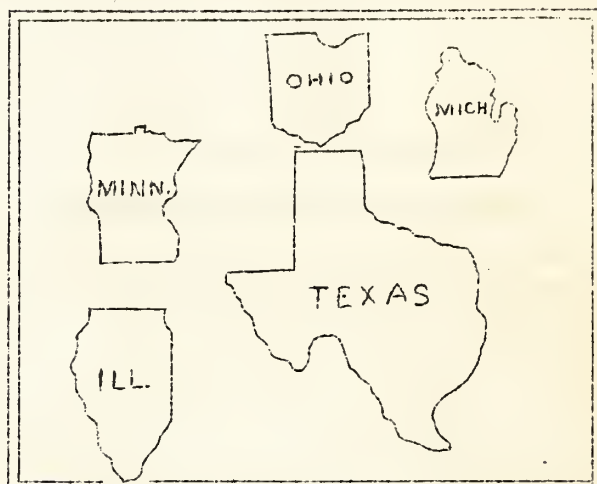
REA SAFETY AND JOB-TRAINING PLAN UNDER WAY IN 5 STATES: "FORGOTTEN MAN" RECOGNIZED

By D. A. Fleming
Editor, REA LINEMAN

Safety and job training continues to be the most important phase of the REA program. Illinois, Ohio, Texas, Minnesota and Michigan, to mention only five states, already have their programs under way. Others will follow.

Group #1 in Ohio at the first session of their Safety and Job-Training course adopted, by a conference method, safe practices in the care and use of rubber gloves. This group included linemen, helpers and superintendents from Ohio 31 Holmes, 84 Carroll, 32 Belmont and 55 Coshocton--86 Guernsey-Muskingum had storm trouble and could not attend. Group sessions lasting two days each are scheduled to include all Ohio REA systems. Trucks, tools and equipment are inspected. Accident reports are discussed and first aid for heat exhaustion, snake bite and poisonous vegetation are seasonal subjects for review, and artificial respiration by the prone-pressure method is regularly practiced. Setting poles with pikes and side lines and the number of men required for safety was also demonstrated and discussed by Group #1 in Ohio and safe practices adopted. Safety Bulletin #7 was studied and it was agreed that it is a good basis for safety in the operation and maintenance of REA lines.

And so another part of the REA program starts which recognizes the forgotten man--the Lineman. Rain or shine, sleet, snow or windstorm and day or night, service must be maintained and the hazards of line work--just everyday stuff such as refusing, switching, tapping on extensions, and tree trimming must be recognized and reduced to a minimum.



REA now attacks the problem with a program of vocational training. In-Service or on-the-job training is what we call it. Training men the safe and efficient way to do the job they are doing today.

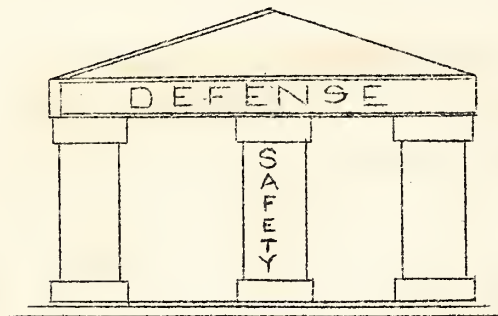
At a recent conference in Washington of Texas superintendents, Clarence Winder, Chief, Cooperatives' Operations Division, said that "saving lives is a privilege and a duty and you, as trustee, have the opportunity of giving your support to a program which will also increase the efficiency of your employees and improve public relations."

It should be remembered that job training has long been the work of John A. Iapp of the REA administrative staff. He has written a book, "The Washburne Trade School--A Study in Trade School Training," which might well be in the library of all REA systems. The book is wide in scope, explaining the many beneficial results of the Smith-Hughes Act. The Washburne Trade School in Chicago is an outstanding example of a Smith-Hughes institution. Mr. Iapp was a member of the Commission on Vocational Education, appointed by President Wilson in 1914, which framed the Smith-Hughes Act.

THE REA LINEMAN

David A. Fleming, Editor

LETTERS TO THE EDITOR



ACCIDENTS AND NATIONAL DEFENSE

A "tremendous loss" in manpower and work hours to the national defense program has been reported to the National Safety Council by Howard Cooley, a member of the council's board of trustees.

It is regrettable, but nevertheless true, that REA systems, so important to the national defense, have been hampered by accidents, some of them fatal.

Every lost-time accident on an REA system hurts our national defense efforts.

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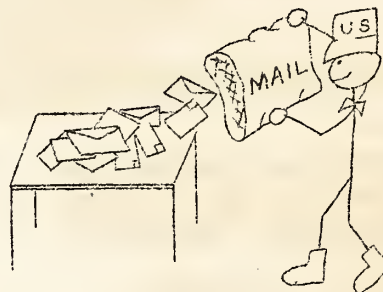
MANPOWER

At first glance, movie criticism does not seem to have a place in the REA LINEMAN, but we cannot resist a word about "Manpower," a current production. The film has to do with linemen working in severe storms and to this observer they seemed to violate every known safety practice. If "Manpower" is any criterion, the film industry might well employ a lineman as technical director.

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NATIONAL SAFETY CONGRESS

The next issue of the REA LINEMAN will report fully the proceedings of the Thirtieth National Safety Congress and Exposition in Chicago. A feature of the congress will be the REA luncheon which will be in charge of D. A. Fleming, REA Safety Director.



Butler, Ohio, co-op: "We have all appreciated each issue of the REA LINEMAN as a stimulation of those safety precautions of which we need a constant reminder."

Clark, Wisconsin, co-op: "We feel that it is impossible to spend too much time on safety."

Merriweather, Michigan, co-op: "Please send 10 copies of the REA LINEMAN every month to be used in our safety program. We are now receiving three and find them very helpful."

Fall River, Idaho, co-op: "We enjoy reading the REA LINEMAN and feel it fills a very definite need among the projects."

Barton, Missouri, co-op: "We read every word of every issue of the REA LINEMAN and think it is very good."

Franklin, Iowa, co-op: "We look forward to getting the REA LINEMAN each month. It is well gone over and different topics discussed here."

Fleming-Mason, Kentucky, co-op: "The REA LINEMAN keeps our linemen safety-minded."

Highline, Colorado, co-op: "We read and enjoy every word of the REA LINEMAN and feel it is a great help in calling our attention to the importance of safety."

Limestone, Texas, co-op: "We want to assure you that the REA LINEMAN is rendering a very worthy service to our organization. Our linemen are always interested in its contents and it helps a lot in keeping them more safety-minded."

LAGUARDIA RECOMMENDS REA COOPERATIVES TO AID IN CIVILIAN DEFENSE PROGRAM

Mayor F. H. LaGuardia, Director of the Office of Civilian Defense, has expressed gratification at the announcement that 800 Rural Electrification Administration Cooperatives throughout the United States have been invited to participate in rural and county defense councils. The Cooperatives include two-thirds of the 3,000 counties in the United States.

Mayor LaGuardia said that the nine Regional Directors of the Office of Civilian Defense and the state defense councils would welcome the active participation of the REA Cooperatives because of their particular facility in promoting the defense program in the rural areas.

"The particular civilian defense services in which the REA Cooperatives can be most helpful," the Mayor said, "are the following:

"Preparations for blackouts

"Emergency traffic control

"Plans for emergency housing and shelter

"Promotion of first-aid classes and instructions in home care of the sick

"Organization of motor corps services

"Organization of aircraft spotting stations and personnel

"Organization of local medical personnel and facilities for emergency work

"Fire-fighting organizations

"Organization of anti-sabotage measures, particularly with respect to power lines, generating plants and substations, bridges, water supplies."

Mayor LaGuardia said he would welcome suggestions from the members of the REA Cooperatives as to how the organization for civilian defense could be facilitated.

"This is another illustration of the wholehearted cooperation of government agencies, and particularly those within the jurisdiction of the Department of Agriculture and the Rural Electrification Administration, in the civilian defense program," Mayor LaGuardia said.

SHOCKS CAUSING LOSS OF MUSCULAR CONTROL ARE HEID HAZARDOUS By G. E. Kimball California Safety News

An electrical shock is a very common experience and reports of escapes from any injury, due to apparently severe shocks, are as numerous as the fatalities. These experiences have resulted in the belief by many that fatalities are due to physiological characteristics. A most frequently heard conclusion is, "It must have been a bad heart."

When a body is made part of an electrical circuit, there are six factors which influence the result. These factors are: type of circuit, voltage, current, body resistance, pathway through the body and duration of contact. Both tests and injury records indicate a wide variation for individuals and for this reason the result of contacts which might be made in the home or industry cannot be predicted.

Tests on humans have been made by several authorities to determine the average current value which produced slight tingling sensations. With hands grasping one-inch rods, the average current was found to be one milli-ampere (0.001 ampere) at 60 cycles. This current was termed the threshold of perception. The average current at which loss of muscular control was experienced was found to be 15 milliamperes (0.015 ampere).

An opinion based on tests made, and allowing for the variation in individuals, states that the threshold of a hazardous 60-cycle current for man would be 100 milliamperes for a contact duration of one second.



ACCIDENTS
"Don't Happen"
They're
"CAUSED"

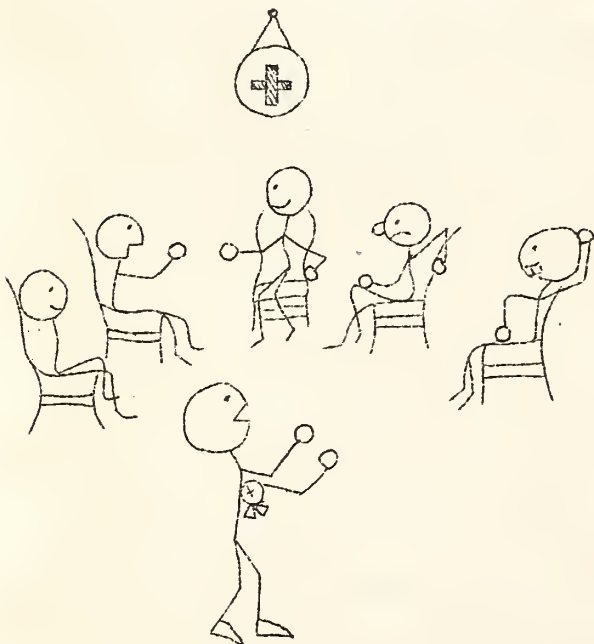


READING OF REA LINEMAN HELPS TEXAS COOPERATIVE BECOME SAFETY CONSCIOUS

By R. H. Hoffman
Superintendent, Karnes (Tex.) Co-op

I have been conscious of the need of stressing a safety program and have, in a sort of melodramatic way, but nothing could have been more helpful than the REA LINEMAN.

Statistical figures, unless backed by conclusive facts, are taken with a "grain of salt" and little if any interest is shown. At first, my ability to sell the board of directors on the idea of joining the National Safety Council was nil. However, since the receipt of the REA LINEMAN we've really become safety-conscious.



Most of our employees are from a contractor's crew, public utility or municipal plant. At the safety meetings we hold each Monday, the REA LINEMAN is read and discussed. Some of our employees would know an accident victim mentioned in the REA LINEMAN. As a result of our interest in safety, we were permitted to join the National Safety Council, start a complete class on Red Cross First Aid, and hold public meetings under the supervision of the Texas Department of Public Safety.

NATIONAL SAFETY COUNCIL OFFICIAL AND AMERICAN RED CROSS PRAISE PUBLICATION OF REA LINEMAN

Here are two letters we were glad to receive. One, from Helen Keating Neal, assistant to the First Aid Director, American Red Cross, states:

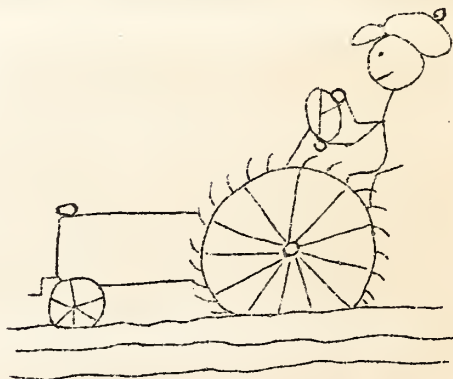
"The REA LINEMAN, your lively and instructive publication, is read with a great deal of interest by members of this department. Through your presentation of Safety, it becomes a tangible and workable tool."

John M. Orts, chairman, news letter committee, Public Utilities Section, National Safety Council, who is connected with the Public Service Corporation of New Jersey writes:

"As editor of 'Public Utilities Safety' during the past year, I want to express my sincere appreciation for your cooperation in making the news letter an instructive and worth-while publication. Your very interesting REA LINEMAN contains a great deal of well-chosen, timely and useful information and I have taken the liberty of drawing freely from its pages."

LINEMAN USES TRACTOR IN EMERGENCY CALL

Two interesting examples of cooperation come from the Farmers Co-op of Chillicothe, Missouri.



One of this system's linemen was called to take care of an outage. Rains had made the roads muddy and the lineman's car got stuck. A co-op member lent the lineman his tractor, and the lineman drove it 3 miles to make the necessary line repairs.

MANPOWER LOSS

These Accidents Were Reported To
REA During August

DEAD REA SYSTEM EMPLOYEES

John Wilkins
Lineman, Oklahoma 14 Love
F. F. Thomas
Lineman, Colorado 15 Morgan
Harold B. Garner
Lineman, Colorado 14 Alamosa
George Halonen, Jr.
Superintendent, Minnesota 34 Stearns
Earl Jacobson
Lineman, Minnesota 9 Goodhue
Orville Hartley
Lineman, Illinois 37 Saline

DEAD NON-REA SYSTEM EMPLOYEES

Vernon Swards
Farmer on Georgia 35 Walton
Roy Kanine
Farmer on Kentucky 30 Shelby
Aloys Hersog
Farmer on Minnesota 34 Stearns
Minnie and Doris Iddings
Members, Kansas 14 Sumner-Cowley
William F. Lewis
Employee, Gibbs & Hill, North
Carolina.

DISABLED REA SYSTEM EMPLOYEES

Mo. 38 Reynolds - Junior Cook, elbow
cut; Marvin McManus, foot mashed;
Charles Morris, leg cut.
Okla. 20 Garvin - C. L. Connor, eye
burn.
Texas 23 McCulloch - P. Lembke, two
broken ribs.
Texas 61 Coleman - S. Hale, broken
hand.
N. C. 34 Anson - F. Hammond, sprained
ankle.
Va. 41 Prince William - L. Welles,
broken back.
Ky. 34 Barren - W. Coffman, electric
burn.
Ind. 37 Jay - L. Hill, ivy infection.

ACCIDENT PREVENTION



SAFETY IS FREE
ARE THE MEN ON
YOUR CO-OP GETTING
THEIR FULL SHARE?

Don't let
an
Accident
Put you
in the
DOG HOUSE



FROM "NATL. SAFETY NEWS"

Iowa 53 Lim - J. C. Cox, foot cut with
ax; W. VanNatta, scalp cut.
Iowa 74 Allamakee - R. Worrell, electric
burns.
Mich. 43 Chippewa - M. Goetz, electric
burns; H. Bergen, electric burns.
Wisc. 46 Lafayette - E. Paska, knee hurt
in auto accident.
N. D. 8 Benson - O. Johnson, electric
shock.
Nebraska 51 Burt - D. Bonneau, cuts on
head.
Arkansas 18 Carroll - L. Rutherford,
foot cut by ax.
Louisiana 6 St. Mary - C. Herbert,
electric shock.
Missouri 32 Atchison - O. Huntz, crushed
thumb.

DISABLED CONTRACTOR EMPLOYEES

Ainsworth Const. Co., Texas - A. Woods,
ivy infection; T. Shoemaker, foot cut
with ax.
Day & Zimmermann, Md. - R. Goodwin, head
cut, teeth broken; M. Driggers, foot
bruised.
Little Electric Co., S. C. - O. Yates,
leg cut; C. Kelley, foot cut.
Piqua Steel Co. - T. Scruggs, dynamite
blast in face.
Quisle & Andrews, Texas - W. Nolen,
creosote burns on arms; H. Smyers,
neck strain.
Ivy H. Smith Co., S. C. - L. Burgess,
foot crushed.

TWELVE DEATHS ARE REPORTED
IN MONTH; 2 WOMEN AND
SUPERINTENDENT AMONG VICTIMS

Deaths of a project superintendent, five linemen, four farmers and two women are reported for August.

George Halonen, Jr., superintendent of Minn. 34 Stearns, was electrocuted while testing a two-way radio. In the same accident, Aloys Hersog, a farmer, was also killed.

Earl Jacobson, Minn. 9 Goodhue, son of the president of the co-op, was killed while attempting to open a jumper.

Orville Hartley, lineman of Ill. 37 Saline, was killed while installing a transformer on an energized line.

John Wilkins, lineman of Okla. 14 Love, was killed when he hit the phase wire after opening a single-shot disconnect.

Harold B. Garner, lineman of Colo. 14 Alamosa, was killed while changing a transformer.

F. F. Thomas, lineman of Colo. 15 Morgan, was electrocuted while on a trouble call. Details of this fatality have not yet been received.

On Ga. 35 Walton, a loose wire, hanging from a transmission line, hit a mule and killed it. Vernon Swards, 18, farmer, obtained a hoe and attempted to disengage the wire. He was killed.

On Ky. 30 Shelby, Roy Kanine was electrocuted when lightning broke a cross-arm and the phase wire dropped on him.

Deaths of Mrs. Minnie Iddings and her daughter Doris, members of Kansas 14 Sumner-Cowley, are cloaked in mystery since none saw them die. It is believed, however, that a pile of metal in their back yard became electrified, that the daughter was killed trying to rescue her dog and the mother killed trying to rescue her daughter.

William Lewis, employee of Gibbs & Hill, Jacksonville, N. C., was killed when poles he was unloading broke loose.

IOWA CONTRACTOR PRAISES
JOB-TRAINING PROGRAM AS
AN AID TO SAFETY

Sandberg & Johnston Construction of Hampton, Iowa, writes to the REA LINEMAN as follows:

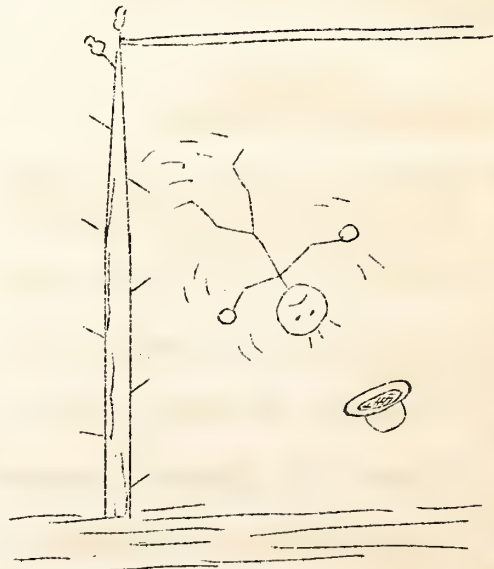
"We are quite interested in your paper and read it through. We notice where you report about the White City Electric taking first-aid training courses.

"Early in 1938 several of our men attended the Red Cross first-aid training courses in Linn County, Iowa. I thought you might be interested in this.

"I think such matters brought to the attention of men in the field do a great deal for safety and the prevention of accidents."

STEPS ON POLES REJECTED

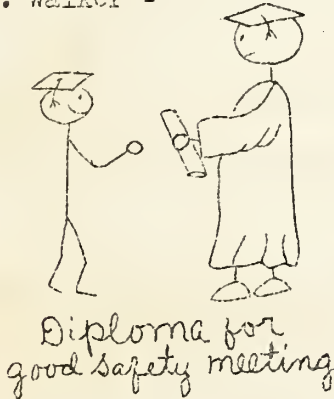
The REA safety committee in Washington long ago decided against the use of steps on poles. Steps were considered a possible source of injury to linemen working on poles. Steps would also enable unauthorized persons, including children, to climb poles, thus exposing them to electrical hazards.



HERE ARE THE MINUTES
OF SAFETY MEETING HELD
BY ALTURAS (CALIF.) COOPERATIVE

Reports on the following subjects were made by the individual committee members:

Inspection of belts and tools by E. A. Walker -



Mr. Walker reported that new straps were put in several pairs of hooks, and the belts and tools were okay.

Blocks, hand lines, ropes, etc., by Paul Robison -
Mr. Robison reported that

several old hand lines were thrown away and new rope will be added; blocks okay.

Transportation, including brakes and lights on trucks, and first-aid kits by Bill Simonson -

Mr. Simonson reported that inasmuch as we were in possession of one new truck and soon will have another, brakes and lights on trucks were obviously okay. First-aid kits are not yet installed in new trucks, but will be as soon as possible.

New Pyrene is needed for fire extinguishers; this to be checked by Don Hicks every thirty days in the future.

Office safety, by Harriet Caldwell -

Miss Caldwell related that the door-step in the office needs fixing. It has too high a step for members who are not aware of it. Don Hicks delegated to use white paint on it as a possible remedy for stumbling.

Line Hazards by E. A. Walker and W. C. Simonson -

Reported that there was a cut-out at Cedarville which had the jumper coming into the bottom instead of the top. This was remedied. A hot jumper is also another hazard at Adin - the wire is still energized when removed. This is to be fixed in the near future.

These are all line hazards known as to date.

Hot sticks and rubber gloves by E. A. Walker -

Reported that hot sticks were in bad shape as far as container was concerned, but that they were now taken care of, using a fire hose. All rubber gloves are to be shipped to Turlock Irrigation District (in two shipments) for testing. Containers for rubber gloves in first-class shape. The question was brought up as to the normal life of rubber gloves, and it was suggested that REA be consulted.

Mr. Grigsby, manager, stated that new type of hot sticks were to be purchased so the cut-out doors will not have to be opened by hand.

The purchase of safety locks for "come-alongs" was also authorized by Mr. Grigsby.

First-aid kits in office by Milan Briles -

It was reported by Don Hicks that all kits were filled satisfactorily.

A motion was made, seconded, and unanimously carried that the date of Safety Meetings be changed from the first and third Friday of each month to the first Wednesday after the first Monday in each month.

Mr. Grigsby stated that 50 miles per hour should be the maximum cruising speed for the new trucks after being broken in properly.

It was agreed that the maximum pole load on the new pick-ups should not exceed two.

It was also decided that signs stating "Men at Work" should be painted and placed on the highway when the REA crew is working there. Red flags should also be carried when poles or other equipment overhangs the back of the truck. Signs when explosives are being carried should be on both sides and back of trucks.

There being no further business to come before the meeting, on motion duly made, seconded and unanimously carried, the meeting adjourned.

G. D. O'Brien
Secretary

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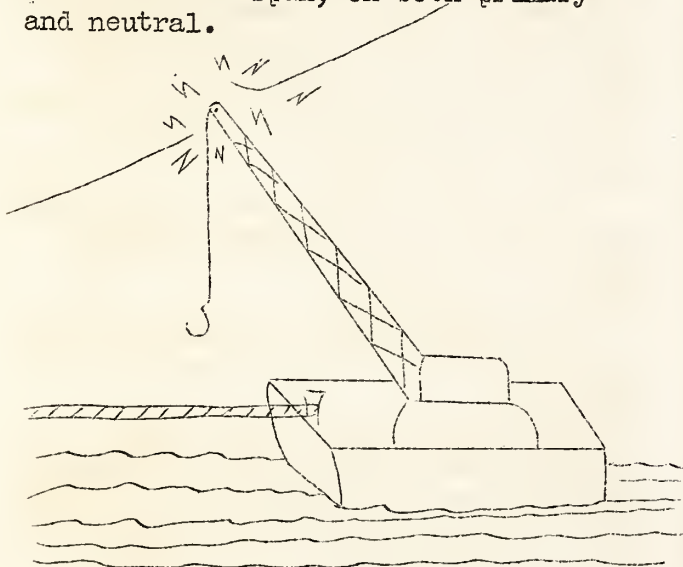
BROKEN SPAN OVER RIVER
REPAIRED IN RECORD TIME
ON SYSTEM IN LOUISIANA

S. J. McMahon, superintendent of Louisiana 10 Washington, writes that "We enjoy the REA LINEMAN, and think it has contributed a great deal to further safety of REA lines and among employees." He adds: "We note the article on Page 1 of the August issue regarding the outage on Wisconsin 38 Rock and we would like to tell you of a recent outage experienced by this cooperative."

O. K., Mac--go ahead.

By S. J. McMahon

June 3, at noon, a derrick barge attempted to cross under our single-phase 7200-volt line (this span carries 85 feet clearance above high tide) on the East Pearl River, and failed to clear the conductor. The derrick was caught in the conductor and tore the crossing down. The conductor was broken in the middle of the span, on both primary and neutral.



The captain of the barge reported the accident to the bridge tender who reported it to us by telephone, via the Coast Electric Power Association, Bay St. Louis, which supplies us with energy. The report reached our office at 2 p.m., was relayed to me at 2:15 p.m. I then picked up sufficient materials to repair the break and drove 26 miles to pick up the line crew.



The crossing is located 75 miles from our office and we arrived there at 4:30 p.m. to start repairing the break. This crossing is built on 110-foot poles, set 15 feet into the ground on floating platforms. The span length here is 803 feet. The poles are set in a marsh about 2000 feet from the roadside and reeds are so thick and heavy, it was necessary to cut a path into each pole. Since they are so close to the Gulf of Mexico, there is an almost constant gale blowing on top of these poles. They are spliced poles, being spliced and bound with steel bands at the 70-foot mark. Three sets of guys hold each pole. It was necessary to ferry across the river, secure the end of the conductor, carry it back far enough to make a splice, and then ferry it back across the river to be set up the pole.

When we were ready to send the ends up the pole, it was necessary to send up rope blocks to hold the conductor, and two sets were necessary to handle the wire. The slack was pulled up with a coffin hoist.

We had one lineman and one second-class lineman with a groundman and myself, together with some ground help from the Coast Electric Power. The lineman had never been on a pole that high before. Nevertheless, the crew was eating supper in the "White Kitchen" served by this tap, four miles from the break, at 8 p.m. under REA lights. The only "casualty" was when a groundman stepped on an alligator and a snake.